

COAL MINING AND RECLAMATION PERMIT APPLICATION TO REVISE A PERMIT (ARP)

Issued To: AMERICAN ENERGY CORP

43521 Mayhugh Hill Rd.

Twp Hwy 88

Beallsville, OH 43716

Telephone: (740) 926-9152

ARP Type:

Quarterly Monitoring Sites (QMR) - Addition Quarterly Monitoring Sites (QMR) - Deletion Permit Number: D-425

Application Number R-425-19

Effective: 10/03/2007

Expires: 10/21/2009

The issuance of this ARP means only that the application to conduct a coal mining operation meets the requirements of Chapter 1513 of the Revised Code, and as such DOES NOT RELIEVE the operator of any obligation to meet other federal, state or local requirements.

This ARP is issued in accordance with and subject to the provisions, conditions, and limitations of Chapter 1513 of the Revised Code and Chapters 1501:13-1, 1501:13-3 through 1501:13-14 of the Administrative Code.

The approved water monitoring plan for this ARP is:

Quality:

N/A

Quantity: N/A

Note: Any previous condition(s) imposed on this permit, or subsequent adjacent areas, also apply to

this ARP unless noted otherwise.

Signature:

Chief, Mineral Resources Management

Date: 10/03/2007

F100 Rev: 07/01/2001

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	Revised Submitta	184

OHIO DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINERAL RESOURCES MANAGEMENT

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APPLICATION TO REVISE A COAL MINING PERMIT

Note: Refer to the division's "General Guidelines for Processing ARPs" and "Requirements for Specific Types of Common ARPs" for guidance on submitting and processing ARPs.

1. Applicant's Name American Energy Corporation

Address 43521 Mayhugh Hill Road

City Beallsville State Ohio Zip 43716

Telephone Number 740-926-9152

- 2. Permit Number D-0425
- Section of mining and reclamation to be revised:

Part 3, F(3)

 Describe in detail the proposed revision and submit any necessary drawings, plans, maps, etc:

Monitoring wells CG-01-5A, CG-01-5B, and CG-01-5C are being abandoned.

5. Describe in detail the reason for requesting the revision:

The above referenced monitoring wells are being properly abandoned to allow for additional refuse disposal. New monitoring wells, CG-06-01-S and CG-06-01D, have been installed approximately 1475 feet southeast, at comparable surface elevations, to replace the above referenced wells to be abandoned.

6. Will this revision constitute a significant alteration from the mining and reclamation operations contemplated in the original permit? ☐ Yes, ☒ No. (Note: refer to paragraph (E)(2) of 1501:13-04-06 of the Ohio Administrative Code to determine if a revision is deemed significant.)

If "yes," complete the following items 7 through 9.

- 7. In the space below, give the name and address of the newspaper in which the public notice is to be published.
- 8. In the space below, give the text of the public notice that is to be published. (Include the information required by paragraph (A)(1) of 1501:13-05-01 of the Ohio Administrative Code.)

Revised 03/06 DNR-744-9003

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9.	In the space below, give the name and address of the public office where this application is to be filed for public viewing.
	I, the undersigned, a responsible official of the applicant, do hereby verify the information contained in this revision request is true and correct to the best of my information and belief.
	Print Name Real M. Michael Title Courses Manages
	Signature Ry III Massay Date 02/05/07
	Sworn before me and subscribed in my presence this Stay of February, 2007 TERESAL DEAL TERESAL DEAL TRANSPORTED STATE OF THE STATE O
	(For Division Use Only)
This a	pplication for renewal is hereby 🖾 issued, 🗌 disapproved.
	<u> 50/1 R/4/ 10-3-07 </u>
Chief,	Division of Mineral Resources Management Date

HYDROGEOLOGIC INVESTIGATION - COARSE COAL REFUSE DISPOSAL FACILITY CENTURY MINE SECTION 3, WAYNE TOWNSHIP, BELMONT CO., OHIO

Well No.: CG-01-5A

Aluminum well

Collar Elevation (feet, msl): 1161.07 Location: N 695,518.10 E 2,412,309.91 Date Started: 12 Merch 2001

Date Completed: 20 March 2001 Water Depth:

203.12 feet

Water Elevation:

957.95 feet, msl

Well Materials List

- 1. Well casing: 2" ID, Sch 40 FVC
- 2. Joint type: Flush thread
- 3. Grout type: Bentonite
- 4. Grout quantity: 56 bags
- 5. Well screen 2" ID, 10 LF
- 6. Screen type: Machine our Sch 40 PVC
- 7. Slot size: 0.010
- 6. Bentonite seal, Bentonite pellets, 1 bucket
- 9. Filter pack type: 430 silica stone
- 10. Filter pack quantity: 4 bags
- 11. Installation method: Gravity

Dolling

- 1. Contractor: McKay & Gould, Orilling, Inc.
- 2 Driller: Randy McKay
- 3 Method: Air rotary, 6 & 6" diameter
- 4. Weather: Fartly cloudy w/rain, high 30's
- 5. Supervision: William J. Siglivy

Respectfully submitted,

William J. Siplivy Certified Professional Geologist

No. 4599, AIPG



CG-01-5A WK4

cover whick Expansion locking cap ____1161.07 Collar Elevation, ft., msi 1158.96 Ground surface, ft., mail 6" dia, porenole Bentonite grout 5" diameter steel casing, 10 if 1154.98 feet, msi Sentonite grout 6" diameter borehole 2" diameter schedule 40 PVC riser Static water level, 16 April 2001 957.95 feet msi 912.07 feet, msi Bentonite pellets 909.07 feet, misl ___ 904.07 feet, msl 2" diameter FVC well screen Sand pack __ End cap 894.07 feet, msl 893.57 feet, mail

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HYDROGEOLOGIC INVESTIGATION - COARSE COAL REFUSE DISPOSAL FACILITY SECTION 3, WAYNE TOWNSHIP, BELMONT CO., OHIO

Well No.: CG-01-68

Aluminum well

Yeasa Califect statulaçõe, a que partir de la compa

Collar Elevation (feet, msi): 1160.16 Location: N 695,537.87 E 2,412,307.73 Date Started: 20 March 2001 Date Completed: 20 March 2001 Water Depth: 77.06 feet Water Elevation 1083.1 feet, mal

Well Materials List

- Well casing: 2" ID, Sch 40 PVC
- 2. Joint type: Flush thread
- 3. Grout type: Bentonite

- 4. Grout quantity: 14 bags
 5. Well screen: 2" ID, 10 LF
 6. Screen type: Machine cut Sch 40 PVC
- 7. Slotsize 0.010
- 8. Bentonite seal: Bentonite pellets, 1 bucket
- 9. Filter pack type: 430 silica stone
- 10. Filter pack quantity: 3 bags
- 11. Installation method: Gravity

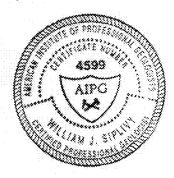
Drilling

- 1. Contractor: McKey & Gould, Orilling, Inc.
- 2. Driller: Randy McKay
- 3. Melhod: Air rotary, 6 & 8" dameter
- 4. Weather: Partly cloudy, high 40's
- 5. Supervision: William J. Sipliky

Respectfully submitted,

Willam J. Siplivy Certified Professional Geologist

No. 4599, AIPG



CG-01-58.WK4

cover willock Expansion locking cap 1160.16 Collar Elevation, ft., msl 1158.57 Ground surface, ft., msi 8" dia, borehole Bentonite grout 6" diameter steel casing, 10 if 1154.57 feet, msi. Bentonite grout 6" diameter borehole. 2" diameter schedule 40 PVC riser 1091.80 feet, mai Bantonite pellets 1088.80 feet, msl ____1085.30 feet, mal Static water level, 16 April 2001 2" dameter PVC 1083.10 feet ms/ well screen Sand pack _____ End cap 1075.30 feet, mst 1074.**6**0 feet, msi

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HYDROGEOLOGIC INVESTIGATION - COARSE COAL REFUSE DISPOSAL FACILITY CENTURY MINE SECTION 3, WAYNE TOWNSHIP, BELMONT CO., OHIO

FEECUROUS BARANAN

Well No.: CG-01-5C

Collar Elevation (feet, mai): 1160.86 Location: N 695,526,14, E 2,412,308,76

Date Started: 20 March 2001 Date Completed: 20 March 2001 Water Depth: 7.24 feet Water Elevation: 1153.62 feet, mal

Well Materials List

- 1. Well casing: 2" ID, Sch 40 PVC
- 2. Joint type: Flush thread
- 3. Grout type: Bentonite
- 4. Grout quantity: 2 bags 5. Well screen: 2" ID, 10 LF
- Screen type: Machine out Sch 40 PVC
- 7. Slotsiza 0.010
- 6. Bentonite seal: Bentonite peliets, 1 bucket
- 9. Filler pack type: 430 silica stone
- Filter pack quantity: 5 bags
 Installation method: Gravity

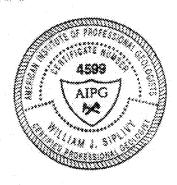
Oriting

- 1. Contractor: McKay & Gould, Drilling, Inc.
- 2. Driller: Randy McKay
- 3. Method: Air rotary, 6 & 6" diameter
- 4. Weather: Partly cloudy, high 40's
- 5. Supervision: William J. Siplivy

Respectfully submitted.

William J. Siplivy Certified Professional Geologist

No. 4599, AIPG



Aluminum well cover w/lock Expansion locking cap 1160.86 Collar Elevation, ft., msi 1158.98 Ground surface ft, moi 8" dia. borehole Bentonite grout 6" diameter steel casing, 10 f 1154.98 feet, msi. Sentonite grout 6" diameter borehole Static water level, 16 April 2001 1153.62 feet, med 2" diameter schedule 40 PVC riser ___ 1150.70 feet, mal Sentonite pellets 1147.70 feet, msi 1145.20 feet, mal 2" diameter PVC well screen Sand pack ___1135.20 feet, msi End cap

CG-01-5C.WK4

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1134.70 feet, msi

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OWNER: AMERICAN ENERGY CORPORATION
PROJECT: HYDROGEOLOGIC INVESTIGATION - No. 2 COARSE COAL REFUSE DISPOSAL AREA
LOCATION: SECTION 3, WAYNE TOWNSHIP, BELMONT COUNTY, OHIO

Well No.: CG-06-1S

Collar Elevation (feet, msl): 1161.49 Location N 694,168.20 E 2,412,882.12 Date Started: 20 July 2006 Date Completed: 20 July 2006 Aluminum well Well Depth * (feet): 88.00 cover whock Groundwater Depth * (feet) 82.93 Well Collar Water Elevation (feet, msl): 1078.56 Expansion locking cap. 1161.49 Elevation, it, misl Well Materials List 1160.53 Ground surface, ft., msl. 1. Well casing: 2" ID, Sch 40 PVC 6" dia. borehole 2 Joint type. Flush thread Note: All depths listed below are Bentonite grout 3. Grout type: Bentonite 6" diameter measurements taken from the 4. Grout quantity: 16 bags
5. Well screen: 2" ID, 10 LF
6. Screen type: Machine out Sch 40 PVC steel casing, 10 ff ground surface. 4.00 feet 7. Sict size: 0.010 8 Bentonite seal: Bentonite pellets, 1 bucket 9. Filter pack type: 430 sāca stone 10. Filter pack quantity: 3 bags Bentonite grout 11. Installation method: Gravity 6" diameter borehole Onlling 1. Contractor: McKay & Gould Drilling, Inc. 2. Oriller: Randy McKay 2º diameter schedule 40 PVC riser __ 3. Method: Air rotary, 6 & 6" diameter 4. Weather, Sunny, mid 80's 5. Supervision: William J. Siplivy Respectfully submitted, 79.00 feet Sentonite pellets 73.00 William J. Siplivy 77.00 feet Certified Professional Geologist No. 4599, AIPG 2" diameter FVC well screen Sand pack End cap 87.00 feet

Note: (*) Well depth and depth to groundwater measured from well collar (top of 2" PVC riser pipe).

Static groundwater level measured on 7 August 2006.

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MONITOR WELL INSTALLATION LOG

OWNER: AMERICAN ENERGY CORPORATION
PROJECT: HYDROGEOLOGIC INVESTIGATION - No. 2 COARSE COAL REFUSE DISPOSAL AREA
LOCATION: SECTION 3, WAYNE TOWNSHIP, BELMONT COUNTY, OHIO

Well No.: CG-06-1D Collar Elevation (feet, msl): 1160.80 Location N 694,163.63 E 2,412,892.27 Date Started: 19 July 2006 Date Completed: 20 July 2006 Aluminum well Well Depth * (feet): 137.00 cover włock Groundwater Depth * (feet): 127.00 Well Collar 1160.80 Elevation, ft., mst Water Elevation (feet, msl): 1033.80 Expansion locking cap Well Materials List 1159.96 Ground surface, ft., msl 1. Well casing: 2" ID, Sch 40 PVC 6" dia, borehole 2. Joint type: Flush thread Bentonite grout Note: All depths listed below are 3. Grout type: Bentonite 6" diameter measurements taken from the 4 Grout quantity: 26 bags 5 Well screen: 2" ID, 10 LF ground surface. steel casing, 10 ff 6. Screen type. Machine cut 5ch 40 PVC 4 00 feet 7. Sict size 0.010 8. Bentonite seal: Bentonite pellets, 1 bucket 9. Filter pack type 430 silica stone 10. Filter pack quantity: 3 bags Bentonite grout 11 Installation method: Gravity 8" diameter borehole Onling 1. Contractor: McKay & Gould Drilling, Inc. 2. Driller: Randy McKay 2" diameter schedule 3. Method: Air rotary, 6 & 8" diameter 40 PVC risier 4. Weather: Sunny, mid 80's 5. Supervision: William J. Siplivy Respectfully submitted, 119.00 feet Bentonite pellets 122.00 feet William J. Siplivy 126.00 feet Certified Professional Geologist No. 4599, AIPG 2º diameter PVC well screen Sand pack 138.00 feet

Note: (*) Well depth and depth to groundwater measured from well collar (top of 2" PVC riser pipe). Static groundwater level measured on 7 August 2006.

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137.00 feet

ODNR-Division of Mineral Resources Management

ARP REVIEW TRACKING SHEET

				·	***************************************		
APPLICANT /	APPLICANT American Energ		гу Согр.		R-425	25-19	
ARP SUMMARY (& Replacement				***************************************		
DISTRICT	Cambridge	APP. M	ANAGER	Treva Ki	nasel	***************************************	
DATE RECEIVED BY	APPLICATIO	 N MANA(ÆR	2-7-2007	<u> </u>	***************************************	
				L	YES	NO	
1. Is the ARP a SIGNIF	TCANT REVISIO	ON? If wes, i	complete and at	tach			
significant ARP Cover						X	
2. Were there public co If yes, a written respon time the ARP is either	ise musi he sent to	those provid			···· ·		
INITIAL REVIEW							
Check applicable reviewers and indicate		Date Se		ate	ACCEPTABLE		
date(s) the ARP was distrib comments returned	neted and	for Revi	ew Kes _l	ωns€	YES	NO	
Jack Johannes (Soils)						
Mike Mann (B)	asting)					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Scott Stiteler (C)wnership)						
Engineer							
X Hydrologist: A	.ke Dillown	3-8-20	07 /20-3	5-07	3/,		
X Inspector: John	, Paterbay	3-8-20	07 4-13	-67			
Field ES:							
Other:							
Date Revisions Sent to App	olicant		Revisions Rec'd	from Appli	cant		
SECOND REVIEW	· · · · · · · · · · · · · · · · · · ·						
Check applicable reviewers and indicate date(s) the ARP was distributed and comments returned		Date Se	at D	ste			
		for Review Re		ponse	YES	NO	
Jack Johannes (So	ils)						
Mike Mann (Blast	'	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Scott Stiteler (Owi	nership)						
Engineer:							
Hydrologist:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				~~~~	
Field ES:		:					
Inspector:		********************				*************************	
Other:						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Date Revisions Sent to App	olicant		Revisions Rec'd	from Appli	cant		

43521 Mayhugh Hill Road Twp.Hwy.88 Beallsville, Ohio 43716 Phone: 740-926-9152

American Energy Corporation

February 5 2007

Treva Knasel Division of Mineral Resources Management 2045 Morse RD. Bldg. 2 Columbus, Ohio 43229-6693

Re: ARP D-0425 Monitoring Wells

fill - 7 mm

Dear Ms. Knasel:

Please find attached our ARP for the above permit regarding the monitoring wells that will be abandon with new monitoring wells installed for replacement.

If you have any questions or need additional information please feel free to contact me your convenience.

Yours truly,

Fred M. Blumling

Environmental Engineer

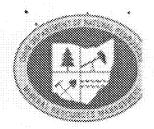


Applicant: AMERICAN ENERGY CORP

ARP REVIEW DUE DATE LETTER

ARP Number: R-425-19

Summary:	
Quarterly Monitoring Sites (QMR) - Addition	
Quarterly Monitoring Sites (QMR) - Deletion	
District: CAMBRIDGE	
Application Manager: Treva Knasel	
Date Received by Application Manager: 02/07/2007	
This sheet is to be completed by the Permitting, Hydrology. Bonding Sect and attached to any ARP documents that are being sent to technical and separate sheet is to be completed for each reviewer.	
Date Sent: 03/08/2007 Date Review Due: 03/29/20	007
✓ Hydrologist: Mike Dillman	. 3 m. 3 may 2,555, 23 may 20 33 33 1 33 5 mm ²⁰ 20 5
✓ Inspector: John Puterbaugh	
Field Team Leader:	APR 1 6 2007
☐ Environmental Specialist:	
Engineer:	DWEDNOFFICERAL
☐ Blasting Plan:	Section 2000 Constitution and the section of the se
Soil Scientist:	
Archaeologist:	
If applicable, date ARP was put on public file:	
COMMENTS:	
I have reviewed the ARP documents and following this review find the mapprovided by the applicant to be:	aterial and information
ACCEPTABLE No further revision(s) is required. The ARP is for active that complies with current regulatory requirements	vity
UNACCEPTABLE Additional revisions are needed as outlined in the attached document.	
Signature: At	Date: 4-13-02
A4 Rev: 07/01/2001	



Applicant: AMERICAN ENERGY CORP

ARP REVIEW DUE DO LETTER

ARP Number: R-425-19

Summary:		
Quarterly Monitoring Sites (QMR) - Addi	tion	
Quarterly Monitoring Sites (QMR) - Dele	tion	
District: CAMBRIDGE		
Application Manager: Treva Knasel	ZE DO SEE AN SEE AS WHE	
Date Received by Application Manage		
This sheet is to be completed by the Perand attached to any ARP documents the separate sheet is to be completed for each	at are being sent to tech	
Date Sent: 03/08/2007	Date Review Due:	03/29/2007
✓ Hydrologist: Mike Dillman		
✓ Inspector: John Puterbaugh		
☐ Field Team Leader:		
☐ Environmental Specialist:		
☐ Engineer:		
☐ Blasting Plan:		
Soil Scientist:		
Archaeologist:		
If applicable, date ARP was put on publi	c file:	
COMMENTS:		
I have reviewed the ARP documents and provided by the applicant to be:	d following this review fin	d the material and information
ACCEPTABLE No further revision(s) that complies with current regulatory r		s for activity
UNACCEPTABLE Additional revisions attached document.	are needed as outlined	in the
Signature:)	Date:/ ② /3/♂
A4 Basic 07/01/2001		